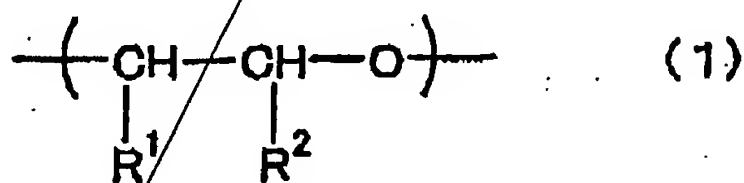


a substituent; A represents an alkylene group of 1 to 3 carbon atoms; m represents an integer of 1 to 50; and A groups which number m may be the same or different, and having a molecular weight of 10,000 to 100,000,000.

7. (New) A mechanical device containing a magnetorheological fluid to which a magnetic field is applied to produce large changes in rheological characteristics and yield stress of the magnetorheological fluid, the magnetorheological fluid comprising magnetic particles, a dispersive medium and a dispersing agent, the magnetic particles being uniformly dispersed in the magnetorheological fluid at all times, including when the mechanical device is operated

wherein the dispersing agent is a polyether containing a polymer unit represented by the following general formula (1):



in the formula, R<sup>1</sup> represents a hydrogen atom or a hydrocarbon group of 1 to 22 carbon atoms; when R<sup>1</sup> represents a hydrogen atom, R<sup>2</sup> represents a hydrocarbon group of 1 to 22 carbon atoms which may optionally have a substituent, or -(AO)m-R<sup>3</sup>; R<sup>3</sup> represents a hydrocarbon group of 1 to 22 carbon atoms which may optionally have a substituent; A represents an alkylene group of 1 to 3 carbon

atoms; m represents an integer of 1 to 50; and A groups which number m may be the same or different, and when  $R^1$  represents a hydrocarbon group of 1 to 22 carbon atoms,  $R^2$  represents a hydrogen atom, a hydrocarbon group of 1 to 22 carbon atoms which may optionally have a substituent, or  $-(AO)_m-R^3$ ;  $R^3$  represents a hydrocarbon group of 1 to 22 carbon atoms which may optionally have a substituent; A represents an alkylene group of 1 to 3 carbon atoms; m represents an integer of 1 to 50; and A groups which number m may be the same or different, and having a molecular weight of 10,000 to 100,000,000.

8. (New) The mechanical device according to Claim 7 wherein the dispersive medium is a hydrocarbon oil.

9. (New) The mechanical device according to claim 7 or 8, comprising one of a clutch, brake, damper, shock absorber, and aseismatic structure for a building.

10. (New) A mechanical device containing a magnetorheological fluid to which a magnetic field is applied to produce large changes in rheological characteristics and yield stress of the rheological fluid, the magnetorheological fluid comprising the rheological fluid of any one of claims 1 and 3 to 6.

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11. (New) The mechanical device according to claim 9, comprising one of a clutch, brake, damper, shock absorber, and aseismatic structure for a building